



NUCLEAR REGULATORY COMMISSION

[NRC-2022-0095]

NUREG: Artificial Intelligence Strategic Plan: Fiscal Years 2023-2027

AGENCY: Nuclear Regulatory Commission.

ACTION: Final report; issuance.

SUMMARY: The U.S. Nuclear Regulatory Commission (NRC) is issuing NUREG-2261, "Artificial Intelligence Strategic Plan: Fiscal Years 2023-2027," dated May 31, 2023. The NRC's Artificial Intelligence (AI) Strategic Plan, establishes the vision and goals for the NRC to continue to improve its skills and capabilities to review and evaluate the application of AI to NRC-regulated activities, maintain awareness of technological innovations, and ensure the safe and secure use of AI in NRC-regulated activities. The AI Strategic Plan includes five goals: (1) ensure NRC readiness for regulatory decision-making, (2) establish an organizational framework to review AI applications, (3) strengthen and expand AI partnerships, (4) cultivate an AI proficient workforce, and (5) pursue use cases to build an AI foundation across the NRC.

DATES: This document was published in the *Federal Register* on [INSERT DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].

ADDRESSES: Please refer to Docket ID **NRC-2022-0095** when contacting the NRC about the availability of information regarding this document. You may obtain publicly available information related to this document using any of the following methods:

- **Federal Rulemaking Website:** Go to <https://www.regulations.gov> and search for Docket ID **NRC-2022-0095**. Address questions about Docket IDs in Regulations.gov to Stacy Schumann; telephone: 301-415-0624; email: Stacy.Schumann@nrc.gov. For technical questions, contact the individuals listed in the "FOR FURTHER INFORMATION CONTACT" section of this document.

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SUPPLEMENTARY INFORMATION:

I. Discussion

The purpose of NUREG-2261, "Artificial Intelligence Strategic Plan: Fiscal Years 2023-2027," is to ensure the NRC's readiness to review and evaluate the use of artificial intelligence (AI) in NRC-regulated activities. NUREG-2261, "Artificial Intelligence Strategic Plan: Fiscal Years 2023-2027," is available in ADAMS under Accession No. ML23132A305. To better understand activities and plans for AI across the nuclear industry, the staff hosted the 2021 Data Science and AI Regulatory Applications Public Workshops and issued a *Federal Register* notice on July 5, 2022, to solicit feedback on the draft AI Strategic Plan (87 FR 39874). Information about and presentations from the workshops can be found on the NRC public website at <https://www.nrc.gov/public-involve/conference-symposia/data-science-ai-reg-workshops.html>. These activities

informed the development of the AI Strategic Plan. The NRC anticipates that the nuclear industry may begin deploying AI in NRC-regulated activities in the near future.

The AI Strategic Plan considers machine learning, natural language processing, and deep learning to be subsets of AI. In practice, the term AI describes various activities that range from data collection and analyses to support human decisionmaking to fully autonomous systems. The AI Strategic Plan adds to regulatory certainty by augmenting NRC readiness to review the use of AI in NRC-regulated activities.

The AI Strategic Plan establishes five goals to ensure the agency's readiness to review the use of AI in NRC-regulated activities. The five strategic goals are: (1) ensure NRC readiness for regulatory decision-making, (2) establish an organizational framework to review AI applications, (3) strengthen and expand AI partnerships, (4) cultivate an AI proficient workforce, and (5) pursue use cases to build an AI foundation across the NRC.

II. Public Comment Analysis

The NRC draft AI Strategic Plan for FY 2023-2027 was published in the *Federal Register* for public comment on July 5, 2022 (87 FR 39874) and the comment period closed on August 19, 2022. The NRC staff held a transcribed comment-gathering public meeting on August 3, 2022, to receive additional comments on the draft AI Strategic Plan. In addition to the comments received during the public meeting, the NRC received seven comment submissions in response to the *Federal Register* notice. In total, the NRC staff identified and responded to 105 individual comments received from individual members of the public and various organizations. The NRC responses to these comments are available in ADAMS under Accession No. ML23037A840.

Dated: May 22, 2023.

For the Nuclear Regulatory Commission.

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